



U.S. Department of Energy  
Energy Efficiency and Renewable Energy

# Creating a Sustainability Movement in Higher Education

University of South Carolina

and

Johnson Controls

Presented by Russell Holly



# Players

- University of South Carolina
- Rebuild America
- National Energy Foundation(NEF)
- Johnson Controls



# Collaboration

- Unique opportunity for all involved
- U of SC: New West Quad
- Student awareness
- Public awareness
- Sustainability



# The Buildings

- Four Dormitory Buildings (West Quad)
- Learning Center



# West Quad Project

- \$30.9M project cost - \$25M const. cost
- 177,000 SF - \$141.24/sf
- Same budget & time
- 502 bed spaces – 4 buildings
- Residential, office, academic & retail spaces
- Goal of LEED Silver – Applying for LEED Gold
- <1% Increase in construction costs
- Additional design fees
  - \$90,640
- LEED documentation
  - \$8,000
- Commissioning
  - \$91,100



# The Learning Center for Sustainable Futures

- Key component of the project for both University instruction and externally-focused environmental education
- \$1.7M – 9,000+ sq ft
- Three seminar rooms, conference room, faculty offices, project rooms, kitchen
- Educational displays
- Fuel cell / turf roof / light towers
- Faculty Director



# Promoting Sustainability

- Optimal target market
- Increase awareness among students
- Create 'green' occupants
- Peer pressure



# Johnson Controls Involvement

- Implemented matching grants for three K-12 school districts in South Carolina for energy and environmental awareness
- Focused on the last 5% of savings through behavior modification
- Higher education was next logical step





# Who

- Michael Koman – Housing
- Dr. Kirsten Dow – Professor
- Terry Adkins – Johnson Controls
- Resident Advisors (RAs)
- Students



# Awareness Program

- Activities
- Hands-on Learning
- Incentives
- Competition



# Accomplishments

- Trained 13 RAs / 500+ students
- Provided technology tool box to RAs
- Light bulb exchange campaign
- Offered mini-grants for larger awareness projects
- Offered prizes to best individual / suite / floor



# Technology Tool Box

- Provided a 'green' tool box to resident advisors to train their students
  - Recycled products
  - Low-wattage night lights
  - Rechargeable batteries
  - Plug-load analyzer
  - Project ideas
  - Posters
  - More...



# Key Ingredients

- Enthusiasm from faculty
- Communication
- Immersion
- Incentives
- Competition



# Conclusions

- Recognition and awards will be completed on Earth Day
- Sustainability foundation completed for next school year
- Reinforced sustainability for 500+ end-users
- Win-win-win-win for all



# Questions?



# Contacts

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